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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,549	01/03/2001	Tom C. Martyn	27521/6:2	5257

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EXAMINER	
LAO, SUE X	

ART UNIT	PAPER NUMBER
2126	5

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No.	Applicant(s)	
	09/755,549	MARTYN, TOM C.	
	Examin r	Art Unit	
	S. Lao	2126	

-- The MAILING DATE f this c mmunicati n app ars n the cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1- 6 is/are rejected.

7)☒ Claim(s) 7 and 8 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-8 are presented for examination.

2. Applicant discusses "AppianDX" as the software product which provides the direct access driver 30 of the present invention. Pertinent references describing the "AppianDX" technology are requested by the examiner so that they can be fully considered.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites "the direct driver" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of art rejection, it is interpreted as "the direct access driver", as best understood and as it appears to be.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 2, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (U S Pat. 5, 835,090) in view of Capelli (U S Pat. 6,510,470).

As to claim 1, Clark teaches in a computer system including an application program (application 15) having a first direct driver application user interface (API) (windows messages), a graphics user interface (GUI) operating system (GUI operating

system 16) having a second direct driver API (windows messages), and a graphics driver application (graphics driver 18), the first and second direct driver APIs and the GUI operating system being capable of driving only a single monitor without display errors [It is noted that drawing to the enhanced desktop implemented with the two monitors will produce errors without the desktop manager], a method of driving multiple monitors without display errors [It is noted that the desktop manager handles the windows messages and prevent display errors], comprising:

providing at least first and second monitors (monitors 12, 14);

installing in the computer system a graphics card (graphics card 22) including at least first and second frame buffers (graphic chips 24, 26, which inherently include respective frame buffers) for operating at least the respective first and second monitors (fig. 1);

operationally interposing between the GUI operating system and the application program a desktop manager application (desktop manager 20 operationally imposed between the OS and the application, col. 2, lines 8-12) for generating an enhanced display area that is coextensive with at least the first and second monitors (multi-monitor enhanced desktop) (, col. 6, line 65 – col. 7, line 4).

Clark does not teach steps of bypassing the graphics driver application and providing a direct access driver for receiving drawing instructions from the first and second direct driver APIs and transferring the drawing instructions to the first and second frame buffers, thereby enabling and accelerating multiple monitor drawing operations.

Capelli teaches graphics instruction processing, including bypassing a graphics driver application (bypass device driver 206), and providing a direct access driver (imposed driver 202 which uses DMA mechanism) for receiving drawing instructions from graphics/display driver APIs (graphics device driver function request) and transferring the drawing instructions directly to a frame buffer of an underlying graphics/display hardware (graphics hardware 118). See col. 3, lines 35-63. the bypassing and providing steps of Capelli enables drawing operations (col. 5, lines 3-16) and provides acceleration by DMA (col. 4, lines 22-30)

Given the teaching of Capelli, it would have been obvious to bypass the graphics driver application in Clark and to provide a direct access driver for receiving drawing instructions from the first and second direct driver APIs and transferring the drawing instructions to the first and second frame buffers. When the teachings are combined, the enabling and accelerating would have been provided for the multiple monitor drawing operations of Clark. One of ordinary skill in the art would have been motivated to combine the teachings of Clark and Capelli because using a bypassing/decoupling driver as taught by Capelli would have provided a mechanism to integrate different types of applications/OSs and/or display/graphics devices (Capelli, col. 5, lines 3-16), which is desirable in Clarks (col. 5, line 61 – col. 6, line16).

As to claim 2, Clark teaches the GUI operating system includes MICROSOFT WINDOWS 95, WINDOWS NT (col. 5, line 55 – col. 6, line 16) and equivalents to which WINDOWS 98 belongs.

As to claim 5, Clark teaches any of the graphics driver application, the direct driver, and the desktop manager application are combined in a single application (combined into a single application, col. 6, lines 23-26).

As to claim 6, Clark teaches the desktop manager application converts single monitor drawing instructions to multiple monitor drawing instructions by monitoring and modifying drawing instructions that pass between the application program and the GUI operating system (monitor and modify messages passed, col. 6, line 56 – col. 7, line 37).

7. Claims 3, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al in view of Capelli as applied to claim 1 and further in view of Chiraz (U S Pat. 6,411,302).

As to claims 3, 4, Chiraz teaches direct driver APIs include at least one MICROSOFT DIRECTX API (DirectDraw), employs direct access to the graphics card (access memory directly), and is a version 3.0 or later (DirectX 6.0). See col. 2, lines 38-48; col. 4, lines 21-65. Chiraz further teaches the MICROSOFT DIRECTX API is not multiple-monitor aware (cannot be full-multi-screen applications, col. 6, lines 51-55; col.

7, lines 18-59. Therefore, it would have been obvious to include MICROSOFT DIRECTX API into the first and second direct driver APIs of Clark as modified. One of ordinary skill in the art would have been motivated to do so because MICROSOFT DIRECTX architecture is optimized for MICROSOFT Windows environments. Col. 4, lines 21-65.

8. Claims 7, 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (703) 305 9678. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Sue Lao
February 18, 2004